Washington, DC Chesapeake Bay TMDL Public Meeting Summary

November 16, 2009

Metropolitan Washington Council of Governments
777 North Capitol Street
Washington, DC 20002

Agenda

- Welcome, introductions, and meeting logistics – **Dr. Hamid Karimi, District Department of the Environment (5 minutes)**
- EPA presentation on the Chesapeake Bay TMDL and EPA expectations – **Katherine Antos and Bob Koroncai, EPA (45 minutes)**
- Public comments, questions and answers – **Panel moderated by Dr. Hamid Karimi (60 minutes)**
    - **Panel includes: WASA; Anacostia Watershed Society; DDOE; Councilmember Tommy Wells, Ward 6 & LGAC Chair; EPA: Katherine Antos and Bob Koroncai; Council of Governments; Interstate Commission on the Potomac River Basin; Natural Resources Defense Council (*invited*)**
- Adjourn

Attendee Detail

Webinar Register: **35**

Webinar Attended: **33**

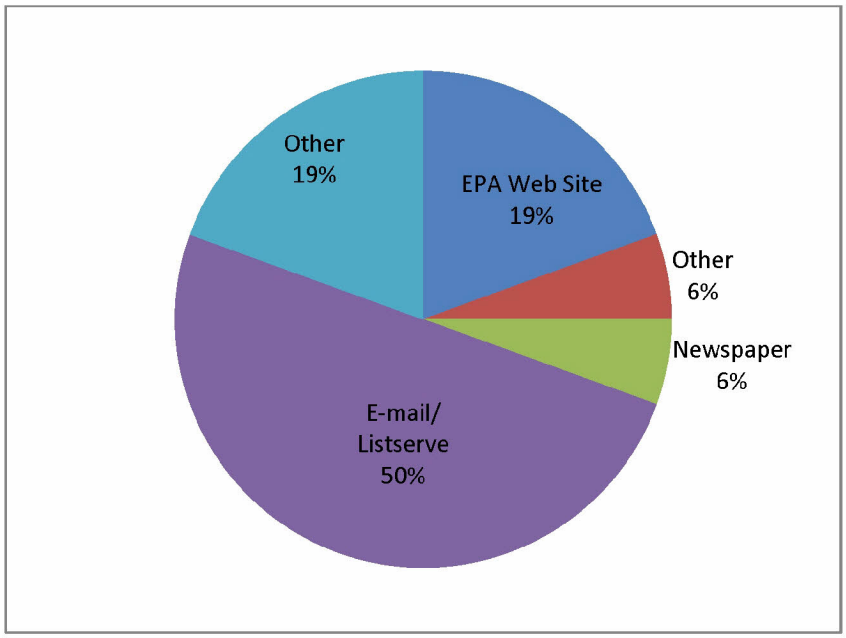
On-Site: **62**

Total Live Attendees: 95

Registration Question:

How did you hear about this Meeting?

- U. S. EPA Web Site (7)
- Other Web Site _____ (2)
  - Potomac Conservancy
  - DDOE Web site
- Newspaper (2)
- E-mail/Listserve (18)
- Other (7)
  - DODE
  - COG
  - Committee Work

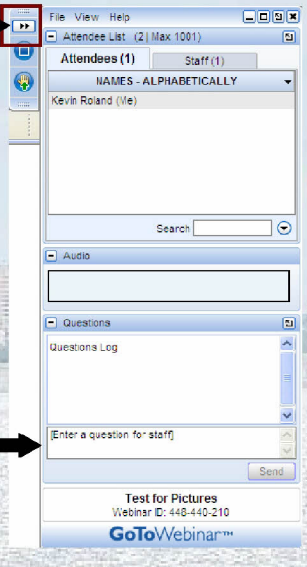


THE CHESAPEAKE BAY TMDL: Restoring Waters of DC and the Chesapeake Bay

Bay TMDL Public Meeting
November 16, 2009
Washington, D.C.

Katherine Antos and Bob Koroncai
U.S. EPA Region III

- Click the double arrow to show or hide your control panel



- Type your questions here.
  (Indicate organization)

Note: Because of the large audience, not all questions will be answered, but they will be saved, and your questions will help drive future events and could contribute to a FAQ.

Technical Issues?

Contact:

- Citrix Global Customer Support
  1-800-263-6317

AGENDA

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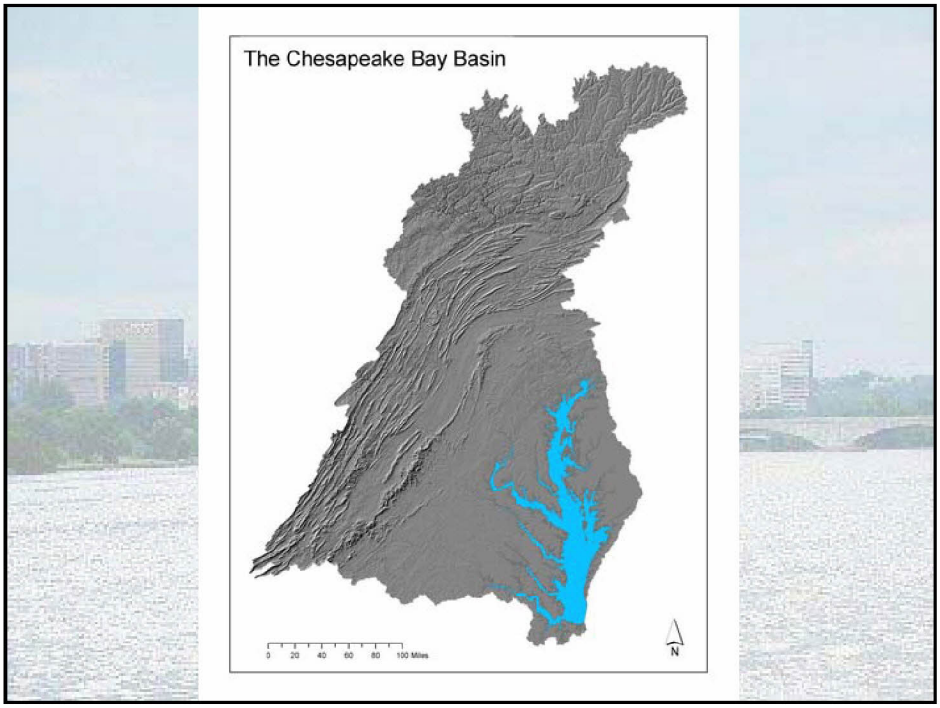
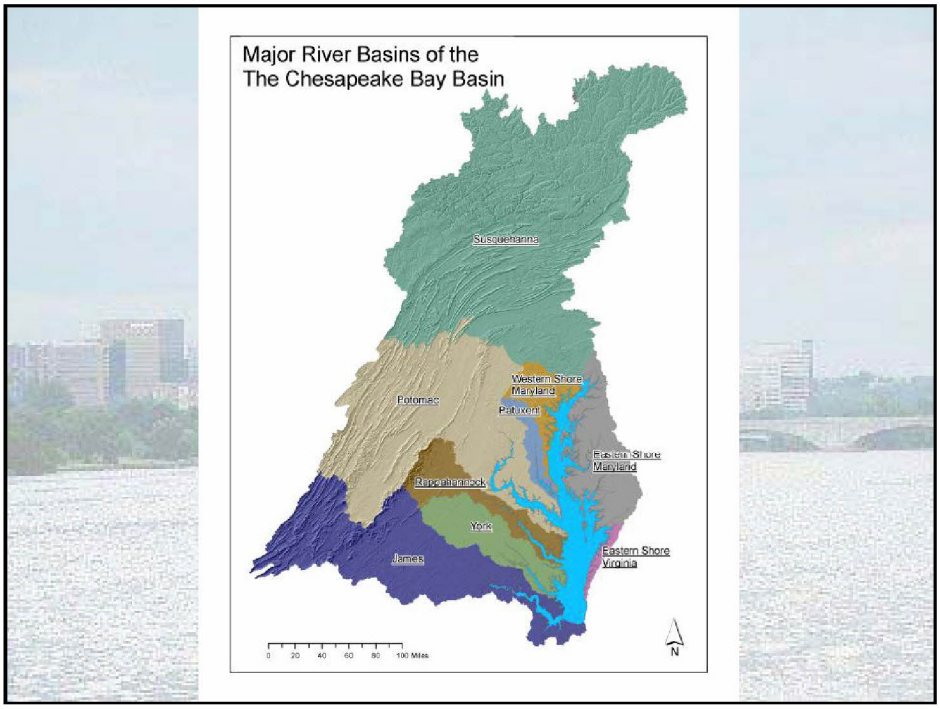
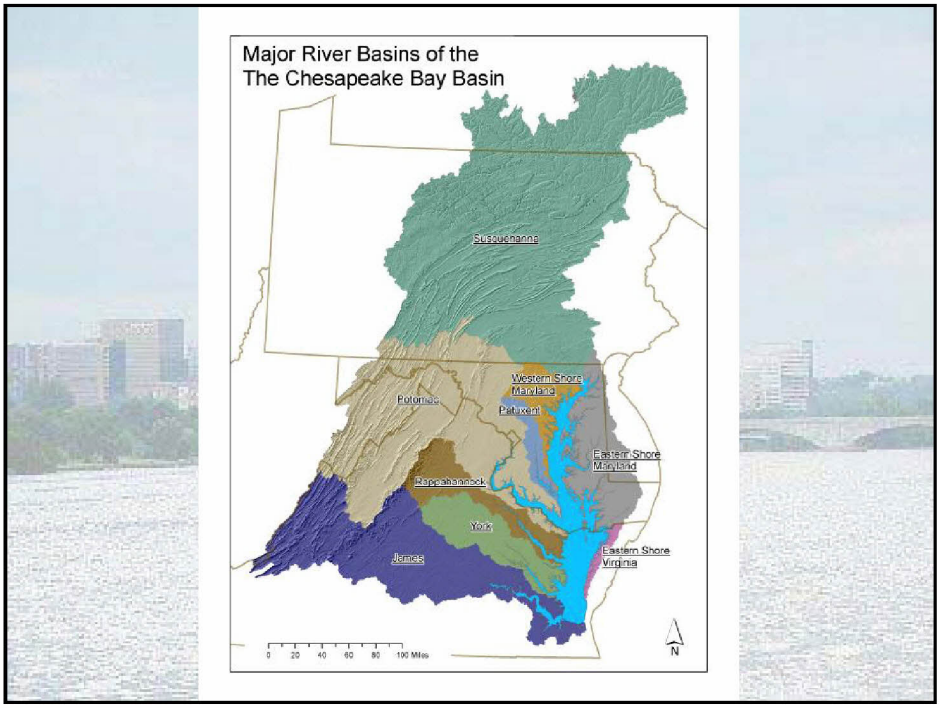

The Chesapeake Bay Basin
0 20 40 60 80 100 Miles
N


Major River Basins of the
The Chesapeake Bay Basin
Susquehanna
Potomac
Western Shore Maryland
Patuxent
Eastern Shore Maryland
Rappahannock
York
James
Eastern Shore Virginia
0 20 40 60 80 100 Miles
N

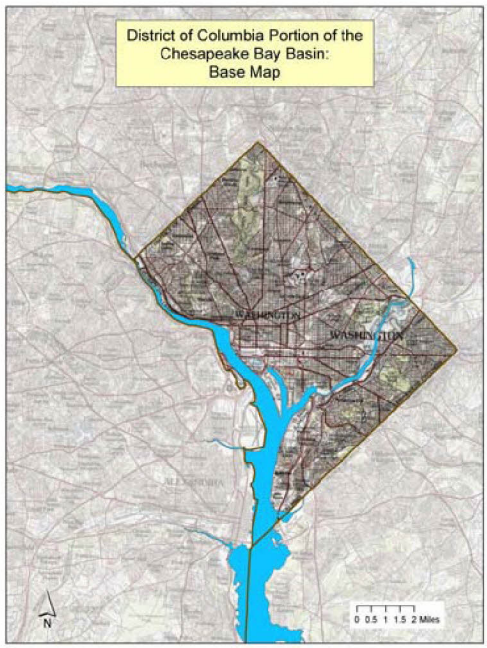


Local Water Quality Issues

District of Columbia Water Quality Issues

Washington's Potomac & Anacostia Rivers

- DC tributaries to the Bay are:
  - Potomac River
  - Anacostia River
  - Rock Creek
- Anacostia River is one of the three most polluted Chesapeake Bay tributaries.
- Most of DC's rivers and streams are impaired for one or more pollutants.
- Sources in upstream jurisdictions contribute the majority of the pollutant loads to the District's main waterbodies.



Washington's Potomac & Anacostia Rivers

Our major water quality issues are typical of all ultra urban waterbodies, they are:

- Bacteria – from combined sewer overflows and stormwater runoff
- Toxics – both coming from upstream, and legacy sediments in the Anacostia; a fish advisory is in effect in the District due to PCBs and PAHs.
- Sediment – from construction sites & streambank erosion
- Trash – will have its own DC TMDL soon
- Nutrients – most nitrogen entering the Potomac River comes from Blue Plains advanced wastewater treatment plant
- Low Dissolved oxygen – leading to habitat impairment and eutrophication.

Local Water Quality Issues

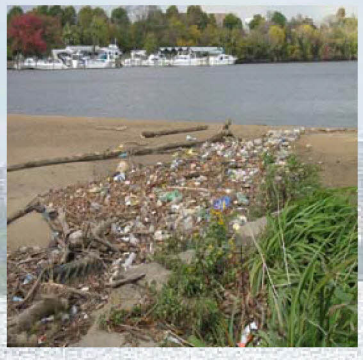
Sediment from a nearby construction site entering Oxon Run of the Potomac River.

Local Water Quality Issues

Stormwater velocity

End results of excessive stormwater scouring: steep cliff erosion (undercut) is the result of too much stormwater coming too fast and scouring the stream banks in Oxon Run.

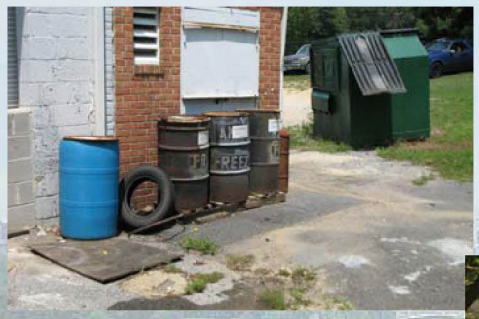
Local Water Quality Issues



Trash on the Anacostia River banks

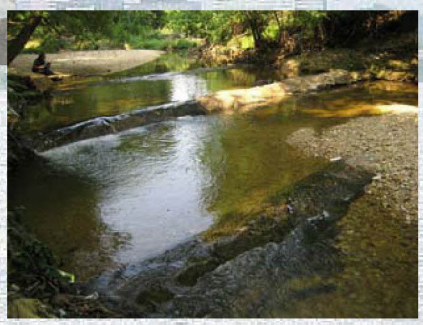
Using a "Bandalong" trash device on the River to capture trash for disposal

Local Water Quality Issues



Toxic chemicals stored improperly – DDOE helps agencies to develop pollution prevention plans to contain toxics and prevent spills, discharges.

Catfish w/tumor from toxics



Sewer lines that cross the river can leak via cracks and fissures – delivering bacteria to Watts Branch

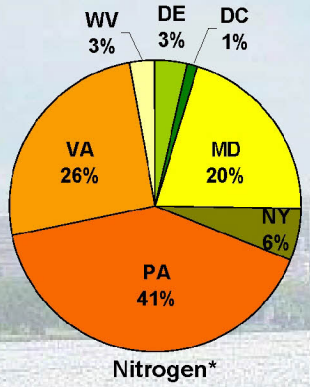
Chesapeake Bay Water Quality Issues

Chesapeake Bay Watershed-
By the Numbers

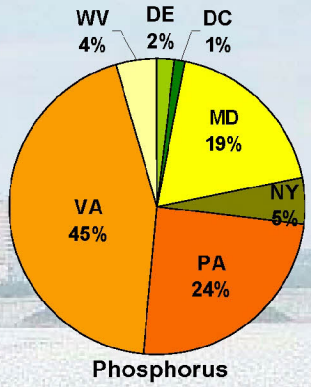
- Largest U.S. estuary
- Six-states and DC, 64,000 square mile watershed
- 10,000 miles of shoreline (longer then entire U.S. west coast)
- Over 3,600 species of plants, fish and other animals
- Average depth: 21 feet
- $750 million contribution annually to local economies
- Home to 17 million people (and counting)
- 77,000 principally family farms
- Declared “national treasure” by President Obama

Source: www.chesapeakebay.net

Nutrient Loads by State

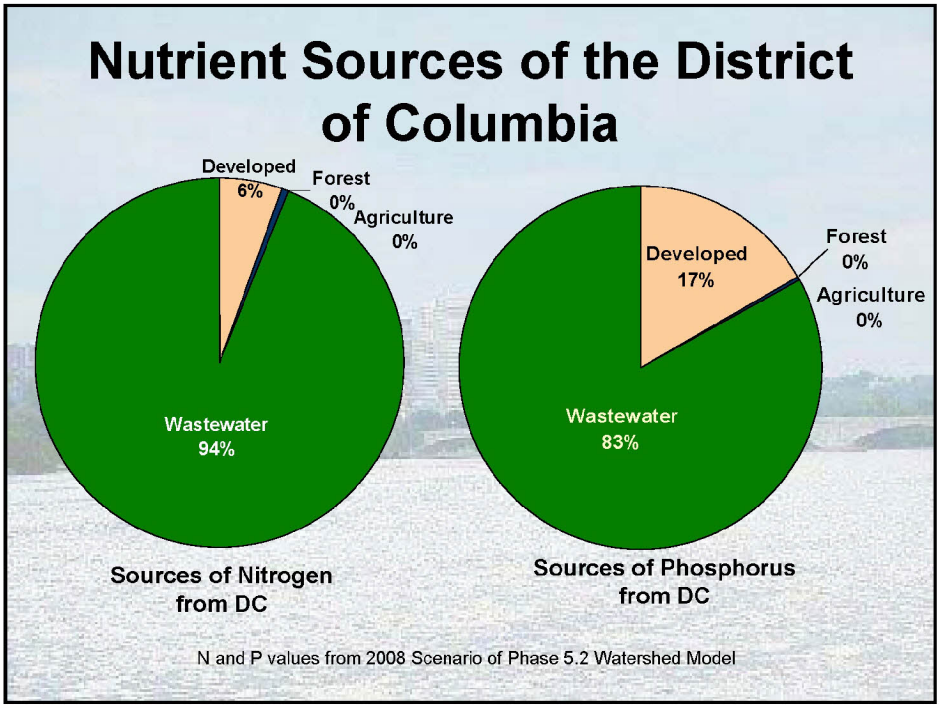


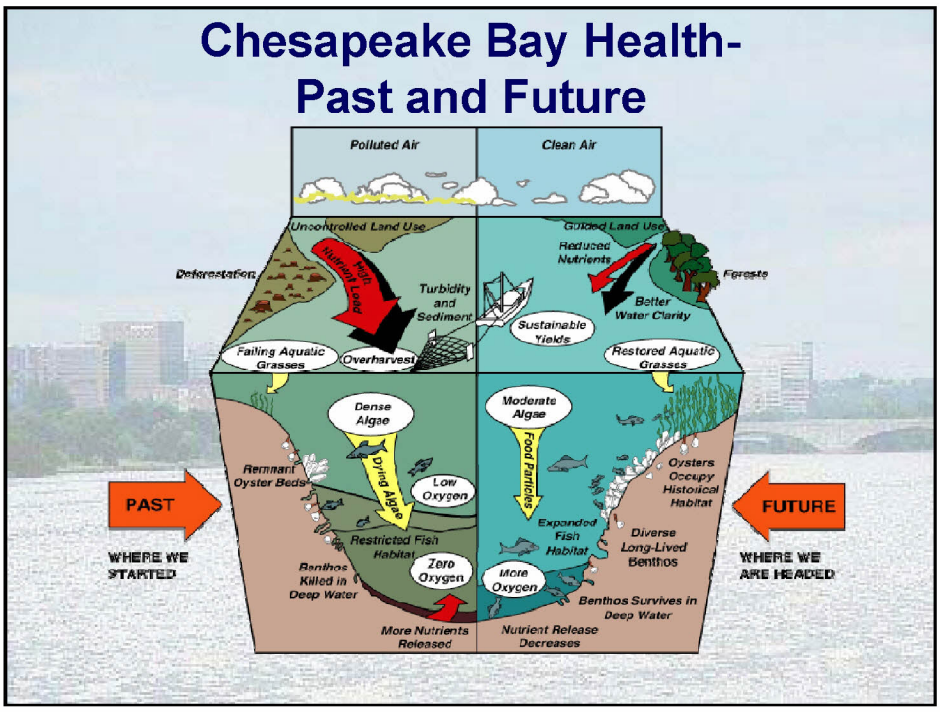
Nitrogen*

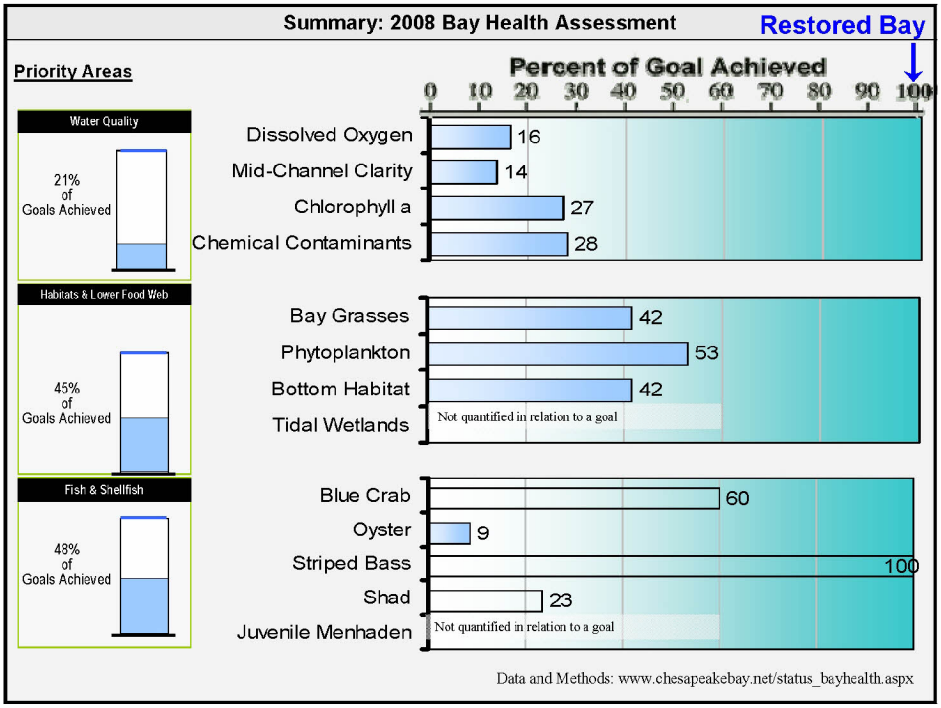


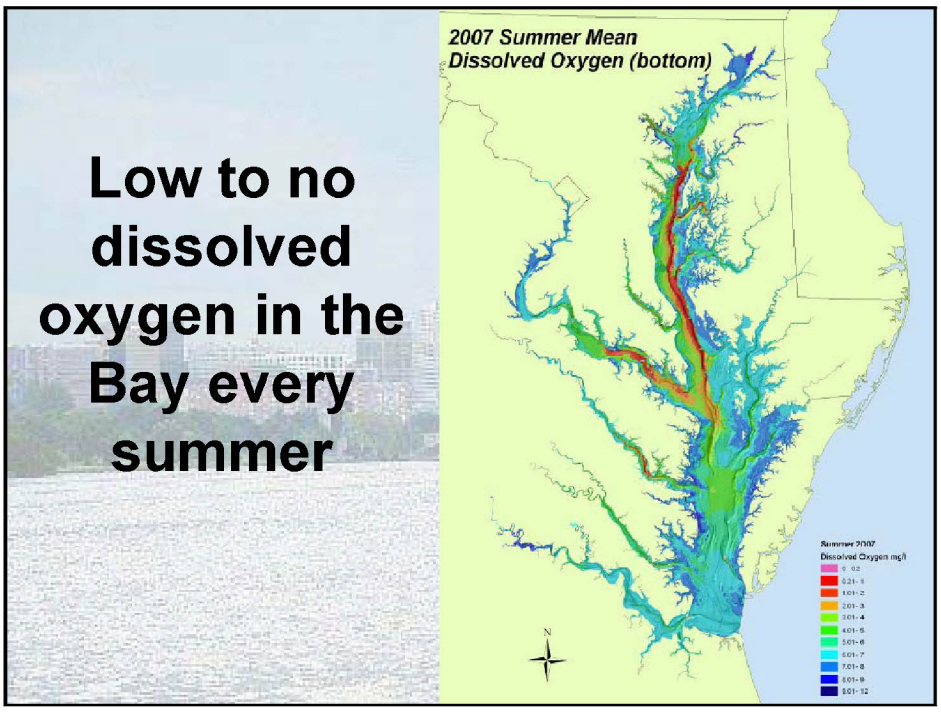
Phosphorus

*EPA estimates a nitrogen load of 284 million lbs nitrogen in 2008. EPA assumes a reduction of 7 million lbs due to the Clean Air Act. This leaves 77 millions lbs to be addressed through the TMDL process.


Nutrient Sources of the District of Columbia
Developed 6%
Forest 0%
Agriculture 0%
Wastewater 94%
Sources of Nitrogen from DC
Developed 17%
Forest 0%
Agriculture 0%
Wastewater 83%
Sources of Phosphorus from DC
N and P values from 2008 Scenario of Phase 5.2 Watershed Model


Chesapeake Bay Health- Past and Future
Polluted Air
Clean Air
Uncontrolled Land Use
Guided Land Use
Deforestation
High Nutrient Load
Turbidity and Sediment
Reduced Nutrients
Forests
Better Water Clarity
Sustainable Yields
Failing Aquatic Grasses
Overharvest
Restored Aquatic Grasses
Dense Algae
Moderate Algae
Remnant Oyster Beds
Drying Algae
Low Oxygen
Food Particles
Oysters Occupy Historical Habitat
PAST
FUTURE
Restricted Fish Habitat
Expanded Fish Habitat
Diverse Long-Lived Benthos
WHERE WE STARTED
WHERE WE ARE HEADED
Benthos Killed in Deep Water
Zero Oxygen
More Oxygen
Benthos Survives in Deep Water
More Nutrients Released
Nutrient Release Decreases

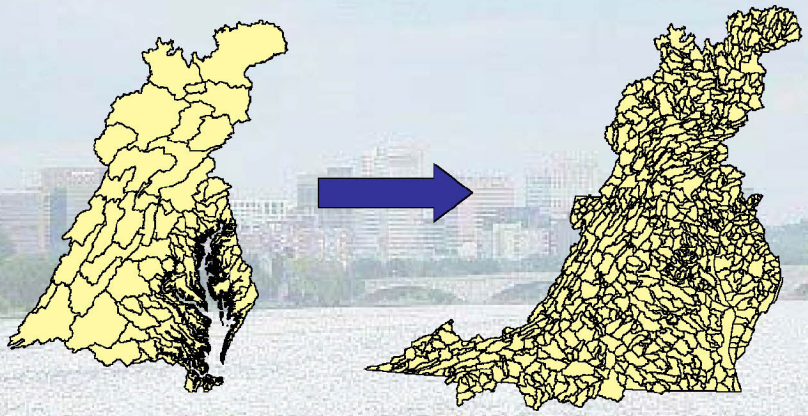

Summary: 2008 Bay Health Assessment
Restored Bay
Priority Areas
Percent of Goal Achieved
0 10 20 30 40 50 60 70 80 90 100
Water Quality
21% of Goals Achieved
Dissolved Oxygen 16
Mid-Channel Clarity 14
Chlorophyll a 27
Chemical Contaminants 28
Habitats & Lower Food Web
45% of Goals Achieved
Bay Grasses 42
Phytoplankton 53
Bottom Habitat 42
Tidal Wetlands
Not quantified in relation to a goal
Fish & Shellfish
43% of Goals Achieved
Blue Crab 60
Oyster 9
Striped Bass 100
Shad 23
Juvenile Menhaden
Not quantified in relation to a goal
Data and Methods: www.chesapeakebay.net/status_bayhealth.aspx


Low to no dissolved oxygen in the Bay every summer
2007 Summer Mean
Dissolved Oxygen (bottom)

The Chesapeake Bay TMDL

- EPA sets pollution diet to meet states' Bay clean water standards
- Load caps on nitrogen, phosphorus and sediment loads for all 6 Bay watershed states and DC
- States set load caps for point and non-point sources

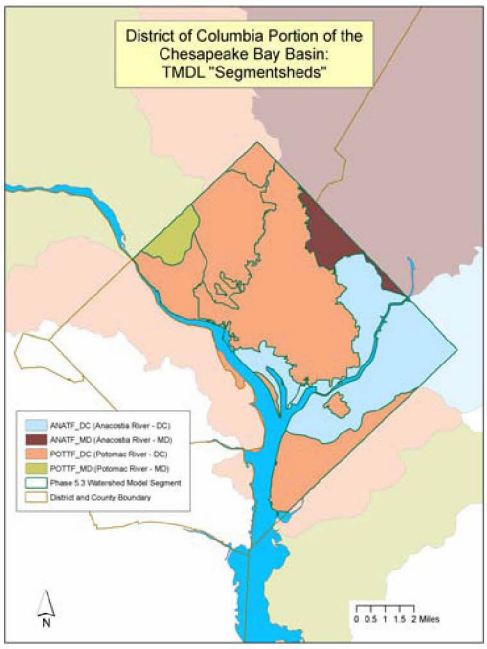
The Bay science supports local pollution diets…



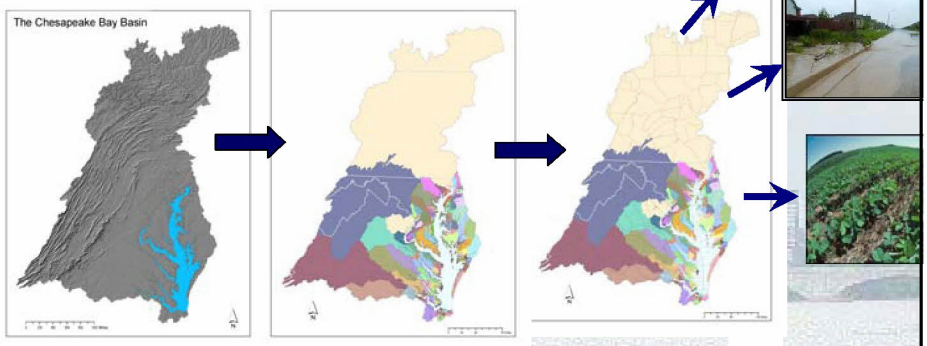
Phase 4 Bay Watershed Model
(2000-2008)

Phase 5 Bay Watershed Model
(2009-)

…with detailed representation of the District's local watersheds



Taking Responsibility for Load Reductions



Identify basinwide target loads

EPA, States, DC

Identify major basin by jurisdiction target loads

EPA, States, DC

Identify tidal segment watershed, county and source sector target loads

States, DC, local governments & local partners

What are the Target Pollutant Cap Loads for the Bay Watershed?

Current model estimates are that the states' Bay water quality standards can be met at basinwide loading levels of:

- 200 million pounds nitrogen per year
- 15 million pounds phosphorus per year

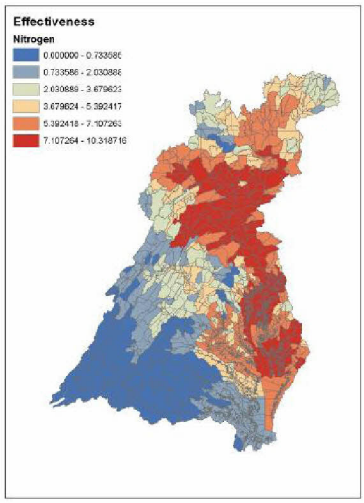
(Sediment target cap load under development-will be available by spring 2010)

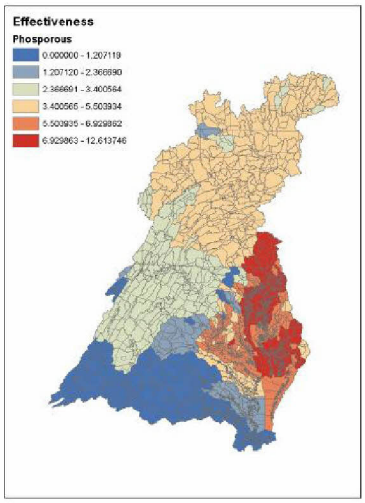
Dividing the Basinwide Target Loading

Guidelines for Distributing the Basinwide Target Loads

- Water quality and living resource goals should be achieved.
- Waters that contribute the most to the problem should achieve the most reductions.
- All previous reductions in nutrient loads are credited toward achieving final cap loads.

Nutrient Impacts on Bay WQ





Current State Target Loads

Nitrogen

State	Tributary Strategy	Target Load
DC	2.12	2.37
DE	6.43	5.25
MD	42.14	41.04
NY	8.68	10.54
PA	73.17	73.64
VA	59.30	59.22
WV	5.69	5.71
Total	197.53	197.76

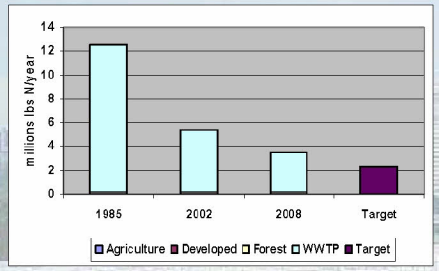
Phosphorus

State	Tributary Strategy	Target Load
DC	0.10	0.13
DE	0.25	0.28
MD	2.56	3.04
NY	0.56	0.56
PA	3.10	3.16
VA	7.92	7.05
WV	0.45	0.62
Total	14.93	14.84

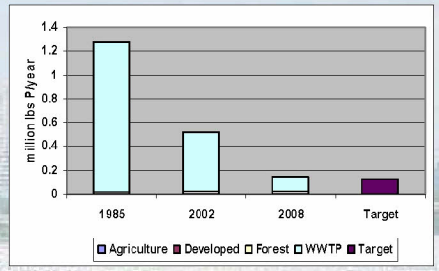
All loads are in millions of pounds per year.

DC's Past, Present and Future Estimated Loads

Nitrogen



Phosphorus

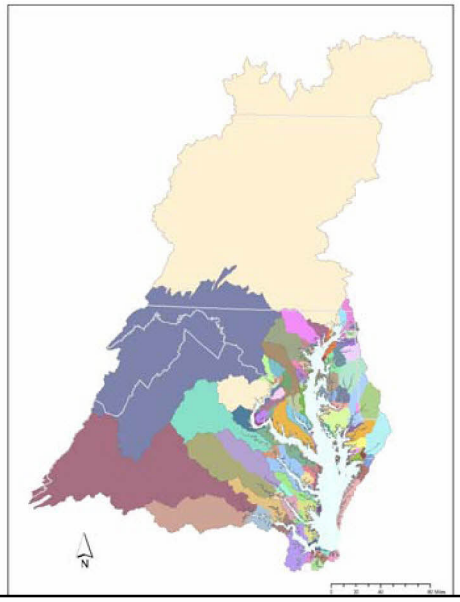


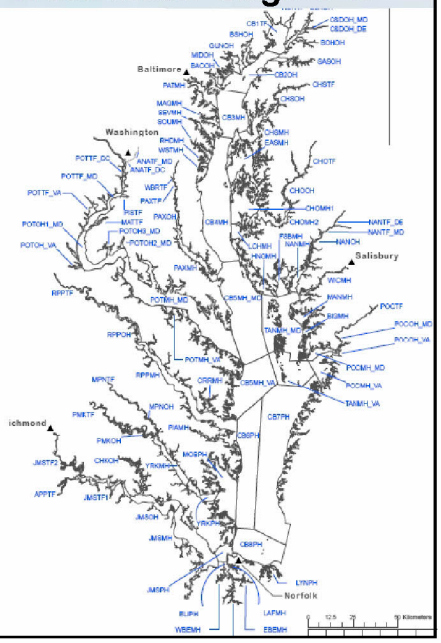
All scenarios run through Phase 5.2 Watershed Model

Target Load Refinements

- If States' Bay Water Quality Standards can still be achieved…
  - The State may exchange nitrogen and phosphorus target loads within a basin; and/or
  - The State may exchange nitrogen and phosphorus loads from one basin to another within the State.

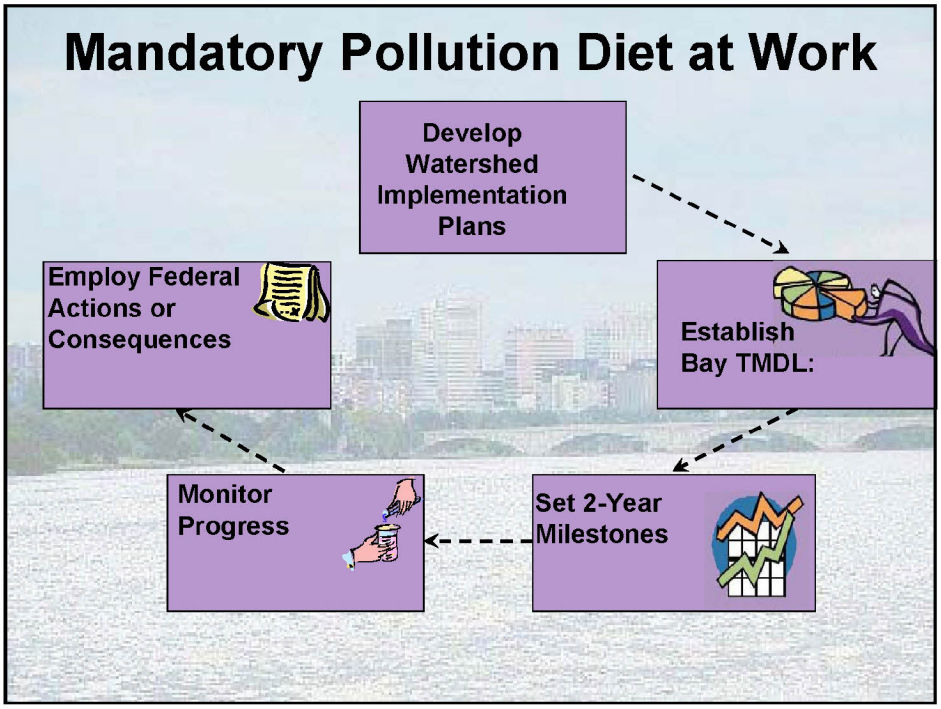
Pollution Diet for Each Tidal Water Segment





The Chesapeake Bay Performance and Accountability System

Mandatory Pollution Diet at Work



Watershed Implementation Plan Expectations

- Identify allowable loads by major river basin, tidal segment watershed, county and pollutant source sector
- Identify Program gaps and strategy
- Commit to develop and implement 2-year milestones at the county scale
- Develop contingencies

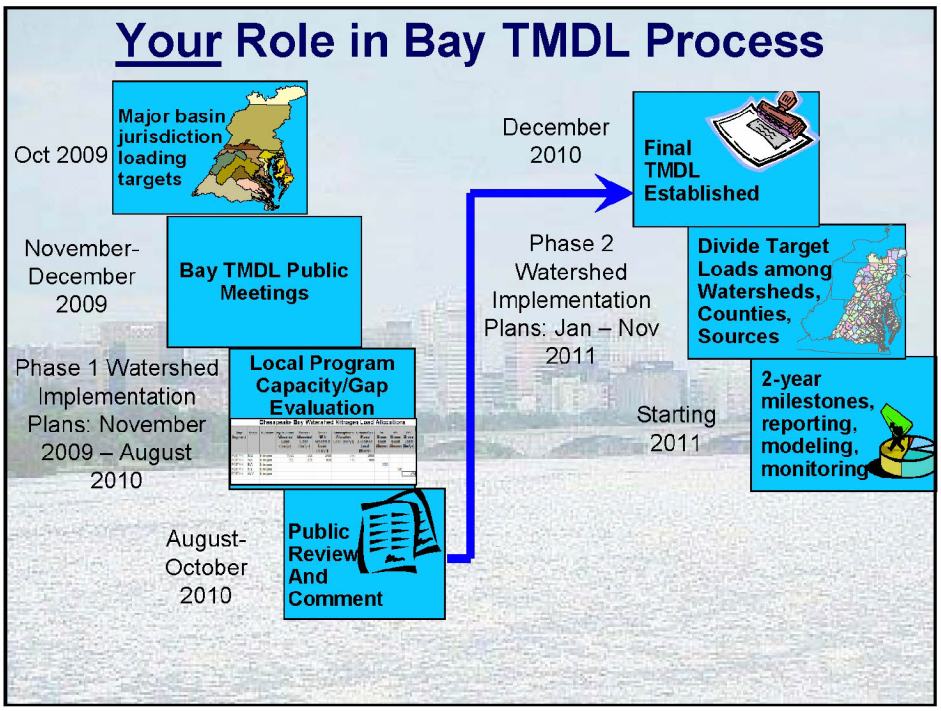
Federal Consequences

- Directed at states not achieving expectations
- Will be outlined in an EPA letter this fall. May include:
  - Assigning more stringent pollution reductions to regulated point sources (e.g., wastewater, stormwater, CAFOs)
  - Objecting to state-issued NPDES permits
  - Limiting or prohibiting new or expanded discharges (e.g., wastewater, stormwater) of nutrients and sediment
  - Withholding, conditioning or reallocating federal grant funds

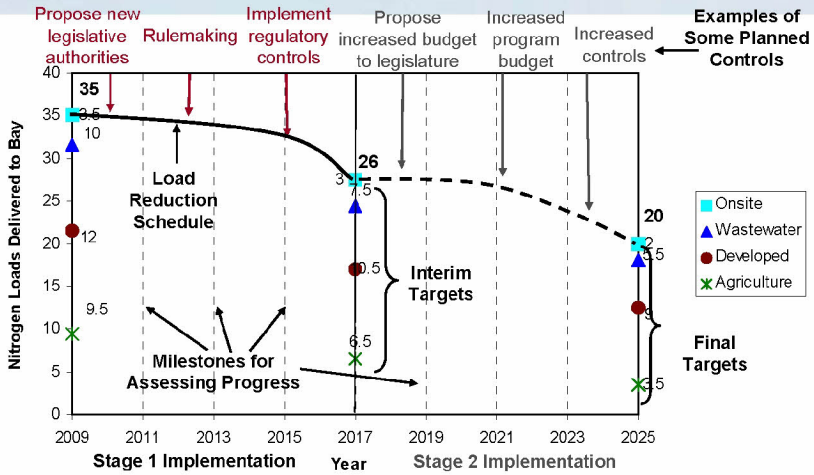
Bay TMDL- Presidential Executive Order Connections

- Create Federal Leadership Committee
- Create the Performance and Accountability Framework
- Expand regulatory tools for CAFO's and urban and suburban runoff
- Improve nutrient and sediment controls on federal lands and roads
- Target farm conservation measures at high priority areas

Your Role in Bay TMDL Process



Example: Projected Nitrogen Delivery from Major Basin in Each Jurisdiction by Source Sector



- Also divide jurisdiction load by 303(d) segment drainage area and, by November 2011, local area
- Attain jurisdiction-wide load reductions by the interim target, or justify why can still meet final target
- Jurisdiction would determine desired 2-year schedule to meet interim and final target loads
- EPA first evaluates milestones based on consistency with jurisdiction target load. EPA accepts shifts among source sectors, basins, segment drainages, and local areas if jurisdiction target load is met and local and Bay water quality goals are achieved

Bay TMDL: Bottom-line

- Actions will clean and protect local waters in DC thereby supporting the local economy
- Restore a thriving Chesapeake Bay
- Federal, state, local officials and agencies will be fully accountable to the public
- Consequences for inaction, lack of progress

Further Information

- Chesapeake Bay TMDL web site
  www.epa.gov/chesapeakebaytmdl
- U.S. EPA Region 3 Contacts
  - Water Protection Division
    - Bob Koroncai
      - 215-814-5730; koroncai.robert@epa.gov
    - Jennifer Sincock (sincock.jennifer@epa.gov)
  - Chesapeake Bay Program Office
    - Rich Batiuk
      - 410-267-5731; batiuk.richard@epa.gov
    - Katherine Antos (antos.katherine@epa.gov)


Thank you for your participation.
THANK YOU
That concludes today's meeting.

Questions Answered

***The letter indicates the source of each question. An "A" indicates that the question was submitted by the live audience, and the "W" indicates that the question was submitted through the webinar. The cards were pre-numbered to easily identify the question once they were submitted. These questions are in the order that they were asked.**

A60: How do you factor legacy nutrient loading in the calculations for TMDL's?

A5: *Follow up for Question #1:* Much of nitrogen in groundwater. This is legacy nutrient that much be addressed. How will this be addressed in allocations?

A56: Why are TMDLs focused solely on nitrogen and phosphorus? Unlike other areas in the county, why is trash/marine debris not considered in the TMDLs?

W1: When is the draft TMDL due to be completed?

A21: Will there be any changes/effects of having a new governor in Virginia, especially because, Governor Kane was involved in CBP's executive order?

A44-A: How/will EPA be encouraging a market-based nutrient trading system to meet TMDL goals?

A44-B: Can you speak to the role of other federal agencies (DOI, USDA, DOD) in overall Bay restoration?

A44-C: Are the models based on observed data? What are the plans to use an adaptive management approach in the future?

A39: In 2000 EPA issued regulations for the TMDL Program that never went into effect and were withdrawn in 2003 or 2004. The 2000 regulations protected the regulatory requirement for WIPs and reasonable assurance. The regulation was withdrawn so requirement does not exist. There is guidance, but no requirement. Second part – This TMDL is driven by lawsuit requiring EPA to develop and issue the TMDL – not the states, therefore EPA should develop the WIPs not the states. How do you reconcile the fact there is no regulatory authority on requirement of the WIPs and reasonable assurance and the TMDL is EPA's responsibility not the states?

A41: EPA is proposing consequences against the states of reductions don't happen? If this is a "partnership" shouldn't there be significant consequences against EPA? For instance if EPA misses a milestone (maybe loading estimates or model data are late) then EPAs budget goes to the states.

A50: Please address the definition of *Daily* in TMDL. In DC, a judge has ruled that daily means daily and many of the TMDLs in DC are not daily.

A13: Question for Jim Connolly – Has the Anacostia Watershed Association considered what role it can play in the implementation of local activities to meet the TMDL?

A30: Who is responsible for what? Who pays? How much? are always the key issues in and successful program. The Obama Executive order does not have funds $$ associated with the clean up. So, thoughts on how this will work? Please advise. Thanks.

A6: Loadings are expected to be allocated to the counties, in some cases (such as in Maryland) many counties are Phase I MS4's which presumably can expect requirements NPDES permits. What about the Phase II MS4's which are located within the phase I MS4's (like PG or Montgomery)? Can these Phase II's also expect to see requirements trickle down to them? What if a county is not an MS4? How will these requirements/loads be applied to them? How will "consequences" trickle down from state to permittee level? What consequences and localities expect? Strengthened permits? Fines?

A42: Agriculture is a target of the Presidential Executive order – Nitrogen and Phosphorus are two essential crop nutrients in the Chesapeake Bay area? If so, how? Mandating best crop management practices or limiting total use of Nitrogen and Phosphorus Crop nutrients by state or other?

W2: Here in Pennsylvania, the role and powers of county governments are very different than county governments in Virginia and Maryland. Has EPA considered how the role of local governments in the TMDL process will be adjusted across different states?

A61: Is the Bay TMDL a "static" or "dynamic" one? How will it be set with respect to growth, population growth, and climate change?

A14: Will states be able to trade off Nitrogen and Phosphorus on a 1 pound to 1 pound basis?

A45-B: Can states adjust their water quality standards to be less stringent so they can "meet" their WQS? For example, downgrading from class II to IV?

A1-A: With the various interpretations coming out of OWM Regarding blending/bypass, will municipalities building advanced waste treatment nutrient removal facilities be required to design these facilities to that all flaws (including peak flows)? Are EPA costs estimates for municipal compliance raised vow average flows or peak flows?

A1-B: States (e.g. Pennsylvania) are currently issuing NPDES permits with nutrient limits based on the cap loads. What assurances will these municipalities who are currently designing their systems have that the EPA TMDL will not superimpose more sediment requirements once the municipality has designed its system?

A58: If sewerage sludge from the District is not allowed to be land-applied in the other Bay states due to TMDLs how will the District deal with the accumulated sludge material?

A29: Seems these consequences are for the states, but what about consequences directly to discharges such as directly to Blue Plains?

A2: How will state's ability to meet TMDL requirements be affected by the removal of Clean Water Act protections under SWANCC and Rapanos?

A40: September 21, 2009, EPA Region 3 sent a letter requiring municipalities to send data to the EPA. The letter cited OMC Control 2040-0071 as the authority for the collection of data. This OMB control is for 305(b). Why did EPA use this as authority for the data collection?

A45-C: How will Watershed Implementation Plans account for substantive outcomes in load reductions rather than simple process (i.e. implement all aspects by May 2025)? How long after May 2025 does EPA expect the Bay to achieve TMDL loadings?

W3: In establishing the 200 million pounds Nitrate per year and 15 million Phosphorus per year basin wide loads, what waste water Nitrate and Phosphorus target effluent concentrations were used or are assumed to achieve the loads?

A45-F/A12-A: How is a TMDL assessed? Is it measured daily with exceedences represented per day? Is it measured monthly and divided by the number of days in a month to ensure compliance with the daily expression? Are modeled or monitored results used to determine if they TMDL is met?

A9: What is being done to address the surface water pollution at Rock Creek and Piney Brach Creek? The neglect there predates 1975 – so if the standards are allowed to be ignored- what protections is there for residents.

A45-A: Which should be followed for implementation? Bay TMDL; 2003 tributary strategies, or local TMDLs?

A62: Is EPA going to set load caps for federal facilities? Or, are the states going to include the federal facilities in their watershed implementation plans?

A12-B: Current privacy laws prevent watershed specific information on Agriculture BMPs to be available to the public. This prevents accurate modeling and research on BMP efficiency. How will EPA deal with this?

A12-C: How will EPA and states be sure that agriculture is actually implementing? The money is given to agriculture but federal laws block tracking.

A45-D: When can the public expect consequences letter to be sent?

A71: Can you put all questions and comments on the website rather than just the "frequently asked questions?"

Questions Submitted but not Answered

A45-E: 60% reductions by 2017. Does this mean a state must have plans in place by 2017 to reduce by 60% at some point in the future? Or is t actual loads? i.e. say on May 12, 2017, will someone have to report the pollution load and if it is not a 60% reduction, then the state has failed to meet that target load?

Comments

William Nuckols:

Hi, I am Will Nuckols, I do Ocean Policy and coastal work nationally, but like to bring it bal to local. The TMDL for trash is related to the fact that we are looking comprehensively, Bay wide, at Nitrogen Phosphorus. While that is a step forward, it seems to be a step forward that we should have made in the past, and we never really caught up with what general discussions are on how we are supposed to be dealing with large picture policy these days.

What you do when you do these TMDLs, separate from the Nitrogen Phosphorus TMDLs, trash TMDLs relates to sediment. Doing the separation is very far from TMDL work which is ecosystem management. What I am afraid of, is that when you get to the end of the tremendously impressive process, you will have succeeded in being rather behind. It is weird to be lying out a road map to the end, and still be behind. We need to see what trouble we're in now, and see how to get out of it and not catch up with the trouble we are already in. With Nitrogen Phosphorus, the time of year it is has a huge impact on the actual water quality and the living resource of the Chesapeake Bay. In the 1980s we figured that this was too new, we were just trying to sell people on the idea of what limiting nutrients are and why Nitrogen Phosphorus mattered at all. Politically it was not at all viable to work at this level of sophistication. It is 20 years later, now, and even the President is talking about science based decision making and this administration is very behind the idea of using real science to drive decision making processes. This process is not heading in that direction.

Jim Collier:

First question is much like the Ag question, but it pertains to living resources. If living resources continue to demand lining resource, will EPA or NOAA reprimand living recourses? In Virginia, continue to manage living resources own a harvestable basis – Will EPA fish and Wildlife or NOAA sanction them for not managing living resources to improve water quality. This includes harvesting all oysters, so that there are none left.

Second question, which is more of a statement: The District of Columbia's word, in regards to the Bay, were good. Before today, that was my word. We always met our requirements; let's let Maryland and Virginia take the lead. I am not going to speak for the District anymore, but by the time I left, I was tired of leading the way on the Bay, and hearing Maryland and Virginia complain about people not doing enough for the Bay and not meeting their standards.